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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,015	03/26/2004	James Jolly Clark	5853-00503	9650

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EXAMINER

JARRETT, RYAN A

ART UNIT	PAPER NUMBER
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2125

MAIL DATE	DELIVERY MODE
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12/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/811,015	Applicant(s) CLARK ET AL.	
	Examiner Ryan A. Jarrett	Art Unit 2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-46 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1 and 2, drawn to a system for assessing wind speed as a function of temperature at least two meters above a zone to be irrigated.
- II. Claims 1 and 3, drawn to sensing unit output via radiofrequency radiation.
- III. Claims 1 and 4, drawn to a temperature/wind speed calibration table.
- IV. Claims 1 and 5 drawn to a system for inhibiting irrigation when the assessed wind speed exceeds a selected value for at least a selected length of time.
- V. Claims 1, 6, 10, and 11, drawn to solar panels supplying electricity to sensing units.
- VI. Claims 1, 7, and 8, drawn to an infrared receiver/transceiver.
- VII. Claims 1 and 9, drawn to a system for controlling irrigation at least partially based on community irrigation instructions.
- VIII. Claims 1 and 12-15, drawn to one or more valves.

- IX. Claims 16 and 17, drawn to a method of inhibiting irrigation when the assessed wind speed exceeds a selected value for at least a selected length of time.
- X. Claims 16, and 18, drawn to a method of assessing solar insolation *and* controlling irrigation at least partially based on the assessed solar insolation.
- XI. Claims 16, and 19, drawn to a method of assessing solar insolation *and* assessing zonal evapotranspiration at least partially based on the assessed solar insolation.
- XII. Claims 16 and 20, drawn to a method of controlling irrigation at least partially based on community irrigation instructions.

- XIII. Claims 21, 22, 34, and 35, drawn to the receiver being a pager device.
- XIV. Claims 21, 23, 34, and 36, drawn to the receiver being an infrared receiver.
- XV. Claims 21, 24, 34, and 37, drawn to the receiver being a single frequency device.
- XVI. Claims 21, 25, 34, and 38, drawn to the receiver being an assignable frequency device.
- XVII. Claims 21, 26, 34, and 39, drawn to specific community irrigation instructions.
- XVIII. Claims 21, 27, 34, and 40, drawn to the region comprising at least a portion of a postal zone.
- XIX. Claims 21, 28, 34, and 41, drawn to a solar panel configured to supply at least a portion of produced electricity to the sensing unit.
- XX. Claims 21, 29, 34, and 42, drawn to a sensing unit configured to assess an amount of moisture in an irrigation zone.
- XXI. Claims 21, 30, 34, and 43, drawn to terminating irrigation when the wind speed measured by the wind sensor exceeds a certain value for a selected length of time.
- XXII. Claims 21, 31, 34, and 44, drawn to a solar panel configured to provide an output that is a function of received sunlight to the computer system, wherein the computer system is configured to assess solar insolation as a

function of the output from the sensing unit and control irrigation at least partially based on the assessed solar insolation.

XXIII. Claims 21, 32, 34, and 45, drawn to a particular type of moisture sensor.

XXIV. Claims 21, 33, 34, and 46, drawn to receiving regional evapotranspiration information for the region, and assessing an irrigation need of the region at least partially based on the regional evapotranspiration information.

The inventions are distinct, each from the other because of the following reasons:

Inventions I-VIII are each related as combination and subcombination, or vice-versa. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combinations as claimed do not require the particulars of the subcombinations as claimed, and the subcombinations have separate utility, since there exists a two-way distinction between each group I-VIII listed above. For example, Group I does not require a temperature/wind speed calibration table, per Group III. And Group III can be used by itself, as evidenced by its separate claiming, i.e., in a system that does not assess wind speed as a function of temperature at least 2 meters above a zone to be irrigated, as is the case with Group I. This type of two-way distinction is present in each group I-VIII listed above.

Inventions IX-XII are each related as combination and subcombination, or vice-versa. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combinations as claimed do not require the particulars of the subcombinations as claimed, and the subcombinations have separate utility, since there exists a two-way distinction between each group IX-XII listed above.

Inventions XIII-XXIV are each related as combination and subcombination, or vice-versa. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combinations as claimed do not require the particulars of the subcombinations as claimed, and the subcombinations have separate utility, since there exists a two-way distinction between each group XII-XXIV listed above.

Inventions (I-VIII) and (IX-XII) are each related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another and materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the methods of Groups IX-XII can be practiced by an apparatus that does not comprise the specific flow, reference, and calibration thermistors required by the apparatuses of Groups I-VIII.

Inventions (I-VIII) and (XIII-XXIV) are each related as combination and subcombination, or vice-versa. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combinations as claimed do not require the particulars of the subcombinations as claimed, and the subcombinations have separate utility, since there exists a two-way distinction between each group (I-VIII) and (XIII-XXIV) listed above. For example, Group I does not require the override feature of Group XIII, and Group XIII can be used in a system that does not require the specific flow, reference, and calibration thermistors required by the apparatus of Group I.

Inventions (IX-XII) and (XIII-XXIV) are each related as combination and subcombination, or vice-versa. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combinations as claimed do not require the particulars of the subcombinations as claimed, and the subcombinations have separate utility, since there exists a two-way distinction between each group (IX-XII) and (XIII-XXIV) listed above. For example, Group IX does not require the override feature of Group XIII, and Group XIII can be used in a system that does not utilize assessing wind speed as a function of temperature at least 2 meters above a zone to be irrigated, as utilized by Group IX.

The examiner has required restriction between combination and subcombination inventions. Where applicant elects a subcombination, and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper. There is a serious burden due the two-way distinctness mentioned above. Multiple different text searches would be required to potentially locate all the distinct features. There is no guarantee that a single comprehensive piece of art would contain all or most all of the distinct features, as the distinct features branch off into numerous different directions.

Claim 1 link(s) inventions I-VIII. Claim 16 link(s) inventions IX-XII. Claims 21 and 34 link(s) invention XIII-XXIV. The restriction requirement among the linked inventions is **subject to** the nonallowance of the linking claim(s), claims 1, 16, 21, and/or 34. Upon the indication of allowability of the linking claim(s), the restriction requirement as to the linked inventions **shall** be withdrawn and any claim(s) depending from or otherwise requiring all the limitations of the allowable linking claim(s) will be rejoined and fully examined for patentability in accordance with 37 CFR 1.104 **Claims that require all the limitations of an allowable linking claim** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

Applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, the allowable linking claim, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan A. Jarrett whose telephone number is (571) 272-3742. The examiner can normally be reached on 10:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ryan A. Jarrett
Primary Examiner
Art Unit 2125

12/02/07

RYAN A. JARRETT
PRIMARY EXAMINER

